

REMARKS

Claims 1-13 were pending in this application (with claims 7, 12 and 13 withdrawn) when the present Office Action was mailed (December 1, 2003). The specification, drawings, and claims 1-3, 5-10, and 13 have been amended, claims 98-99 have been added, and examination of claims 7, 12 and 13 has been requested. Accordingly, claims 1-13, 98 and 99 are currently pending.

In the Office Action mailed December 1, 2003, the declaration, drawings and specification were objected to, claims 1, 4 and 11 were rejected, and claims 2, 3, 5, 6 and 8-10 were objected to. More specifically, the status of the application in light of this Office Action is as follows:

- (A) The declaration filed with the application stands objected to as failing to identify a priority application on which the present application is based;
- (B) The drawings stand objected to as including multiple features identified by the same reference character, and allegedly failing to show the features recited in claim 10;
- (C) The specification stands objected to on the basis of a number of informalities;
- (D) Claims 5 and 8 stand objected to on the basis of informalities;
- (E) Claims 1, 4 and 11 stand rejected under 35 U.S.C. Section 103(a) as being unpatentable over U.S. Patent No. 5,581,082 to Hansma et al. ("Hansma"); and
- (F) Claims 2, 3, 5, 6 and 8-10 stand objected to, but were not rejected on the basis of prior art.

The undersigned attorney wishes to thank the Examiner for engaging in telephone conferences on February 25 and March 1, 2004. During the telephone conferences, the undersigned attorney proposed an amendment to claim 1 which the Examiner agreed would result in the removal of the outstanding rejection of claim 1

under Section 102. The following remarks summarize and expand upon the agreements reached during the February 25 and March 1 telephone conferences.

A. Response to the Objection to the Declaration

On December 31, 2001, applicants submitted by mail a supplemental declaration that clearly identifies the priority claim to Singapore Application No. 200104881-8. A copy of the submission made to the Patent Office on December 31, 2001 along with the declaration are enclosed. Accordingly, the objection to the declaration should be withdrawn.

B. Response to the Objection to the Drawing

The drawings were objected to because the reference character "136" was used to designate both a solder bridge and a projection. The occurrence of reference character 136 in Figure 2 has been changed to 137 and the corresponding text of the specification at page 7, paragraph 22 has been changed accordingly. Accordingly, this objection to the drawings should be withdrawn.

The drawings were further objected to as allegedly failing to show a feature of claim 10, specifically, a support member having a generally ring-shaped contact surface. As discussed during the February 25 telephone conference between the undersigned attorney and the Examiner, Figure 2 illustrates this feature via a cross-sectional view. Accordingly, this objection to the drawings should be withdrawn.

C. Response to the Objections to the Specification

The Office Action identified several informalities in the specification, which have been corrected by this amendment. Accordingly, the objections to the specification should be withdrawn.

D. Response to the Claim Objections

Claim 5 was objected to as containing a multiple occurrence of the word "of" at line 2, and claim 8 was objected to as failing to include a comma after the word "defect"

at line 3. These claims have been amended in the manner suggested by the Examiner and accordingly the objections to these claims should be withdrawn.

E. Response to the Section 103 Rejection

Claims 1, 4 and 11 were rejected under 35 U.S.C. Section 103(a) as being unpatentable over Hansma. Claim 1 has been amended to clarify that the support member is configured to carry a microelectronic substrate with "first and second portions" of oppositely facing surfaces of the substrate "out of contact with the support member" and exposed. During the February 25 and March 1 telephone conferences, the Examiner agreed that claim 1, in its amended form, patentably distinguishes over Hansma for at least the following reason. Hansma appears to be directed to a device that measures surface characteristics of a single surface of a sample from both above and below. The entire extent of an apparently very thin sample is carried on a clear support. A probe positioned against the surface from above makes a force measurement, and a source of focussed beam energy irradiates the surface from below, through both the support and the sample itself. Accordingly, Hansma does not disclose or suggest a support configured to carry a microelectronic substrate with first and second portions of oppositely facing surfaces "out of contact with the support member." Therefore, as agreed to by the Examiner during the February 25 telephone conference, the Section 103 rejection of claim 1 on the basis of Hansma should be withdrawn.

Claims 4 and 11 both depend from claim 1. Accordingly, the Section 103 rejections of these claims should be withdrawn for the reasons discussed above and for the additional features of these dependent claims.

F. Response to the Objected To Claims

Claims 2, 3, 5, 6 and 8-10 were objected to only because they were written to depend from claim 1. These claims have been rewritten to be in independent form and to clarify the relationship of the topographical feature detector to the support member,

without narrowing the scope of these claims. Accordingly, the objections to these claims should be withdrawn.

G. Request for Examination of Additional Claims

Claims 7, 12 and 13 were withdrawn in response to a species restriction requirement. These claims depend from allowable generic claim 1 and accordingly should be considered and allowed. Though not requested in the Office Action, claims 7 and 13 have been amended to clarify the antecedent basis of certain claim elements.

New claim 98 depends from claim 1 and further comprises the microelectronic substrate carried by the support of claim 1. Accordingly, claim 98 should be allowed.

Claim 99 is directed to a detection apparatus that includes the features of claim 1 as originally filed, and further explicitly claims a microelectronic substrate having first topographical features on a first surface and second topographical features on a second surface facing opposite from the first surface. The support member carries the microelectronic substrate with "a first portion of the first surface exposed" and "a second portion of the second surface [also] exposed." Hansma, as discussed above, discloses an apparatus for measuring only a single surface of a sample, both from above and below. Hansma fails to disclose a substrate having topographical features on both first and second oppositely facing surfaces. Nor would one be motivated by Hansma's disclosure to provide such a substrate because such features would likely interfere with the ability of Hansma's optical system (positioned below the substrate or sample) to accurately determine characteristics of the upper surface. Therefore, claim 99 patentably distinguishes over the applied reference and should be allowed.

H. Conclusion

In view of the foregoing, the claims pending in the application comply with the requirements of 35 U.S.C. § 112 and patentably define over the applied art. A Notice of Allowance is, therefore, respectfully requested. If the Examiner has any questions or believes a telephone conference would expedite prosecution of this application, the Examiner is encouraged to call the undersigned at (206) 359-3257.

Respectfully submitted,

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